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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,748	09/21/2005	Katsuyuki Baba	Q89692	7056
23373 7590 07/11/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER DIAO, M BAYE	
			ART UNIT 2838	PAPER NUMBER
			MAIL DATE 07/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,748

Applicant(s)

BABA, KATSUYUKI

Examiner

M'baye Diao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3 - 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09/21/2005/06/05/2007.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claims 4 – 6 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only, and/or, cannot depend from any other multiple dependent claims as is the case of claim 4. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

2. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

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application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Allen et al., (Allen) US 2003/0205421.

As per claim 1, Allen et al. discloses (page 4, [0050]-[0051]) and show in Figs. 1 & 6 - 7 a battery changer (24) that exchanges a battery (20) to be loaded into a self-propelled traveling device (10) comprising:

a battery access part ((12) and (13)) that moves forward and backward (indicated by the double arrow 19) between a device body (11) and a battery take-out port (27) of a battery placing part (26) of the self-propelled traveling device (10); a battery grasping part (28) disposed at a front end (see Fig. 7) of said battery access part ((12) and (13)); two or more battery storage parts (20) that are disposed in the front (see Fig. 6) of said battery access part ((12) and (13)); a feed mechanism part (16) that is disposed on a front side of the battery access part and that moves said battery storage part perpendicularly in forward and backward directions of said battery access part ((12) and (13)); wherein said device body (11) is provided with a pull-in part (cylinders (25) and rods (29)) which moves forward and backward in the forward and backward directions thereof (since the vehicle 10 can either move forward or in a reverse movement), and a pair of pull-in arms (71)(see Figs. 21-22 and page 5 [0064]) that are disposed on both sides of said pull-in part (cylinders (25) and rods (29)).

Accordingly, claim 1 is anticipated.

5. Claims 1 – 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Gazette of Japanese published examined application 2001-023698 (1).

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As per claims 1 - 2, reference 1 discloses a battery changer that exchanges a battery (8) to be loaded into a self-propelled traveling device and the battery changer includes a battery access part that moves forward and backward between a device body and a battery take-out port of a battery placing part of the self-propelled traveling device; a battery grasping part (19) disposed at a front end of the battery access part; a feed mechanism part (29) that is disposed on a front side of the battery access part and that moves perpendicularly in forward and backward directions of the battery access part; two or more battery storage parts (4) that are disposed in the battery access part and the feed mechanism part (29) movably; and a positioning support part (10) and positioning slide rail (2) that is laid on a floor surface in rightward and leftward directions of the device body and slides the device body in rightward and leftward directions, each of the battery storage parts (4) has a charging terminal that charges in a state that the battery is stored, the battery changer includes a rail, where the battery accessing part slides on, is laid back and forth on a rear side of the device body and, the battery access part includes a grasping motor which rotates the battery grasping part, and the battery grasping part includes a push-out wall part that pushes the battery out and a pair of pull-in claw parts that are each shaped like a hook and that are protruded so as to face the push-out wall part (for example, [0001] - [0030] and/or figure 1).

6. Claim 3 is objected because the prior art does neither anticipate nor render it obvious.

Conclusion.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
8. Gaskins, US PAT 5,598,083 discloses a battery changing system for electrically powered vehicle.
9. Grumblatt, US PAT 5,399,061 discloses a battery changer on a mobile machine.
10. Gu et al., (Gu), US PAT 6,094,028 disclose a battery charging and handling system for electric vehicles.
11. Aarseth, US PAT 5,998,963 discloses an electric vehicle service center and method for exchanging and charging vehicle batteries.
12. Lashlee et al., (Lashlee) US PAT 5,668,460 disclose a battery recharger turntable.
13. Gulmarin et al., (Gulmarin) US PAT 5,612,606 disclose a battery exchange system for electric vehicles.
14. Parmley, SR. US PAT 5,508,597 discloses a quick exchange battery apparatus for battery powered vehicles and method therefor.
15. Parmley, Sr. US PAT 5,452,983 discloses an apparatus and method for replacing a battery pack in a battery-powered vehicle.
16. Marton, USPAT 5,187,423 discloses a system for replenishment of energy stored in a battery on an electric vehicle.
17. Meyer et al., (Meyer) US PAT 5,091,687 disclose an apparatus for exchanging and charging of energy storages of transport vehicles.

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18. Pflieger, US 4,227,463 discloses an apparatus for removing and installing batteries.

19. S. S. Corso, US PAT 3,122,244, discloses a battery remover and replacer apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M'baye Diao whose telephone number is 571-272-9748. The examiner can normally be reached on 8:30-5:00; First Friday off;

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M'baye Diao
Examiner
Art Unit 2838

M.D


KARL EASTHOM
SUPERVISORY PATENT EXAMINER